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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,519	03/02/2004	Andrew E. Gruber	091154	2773
23696 7590 10/07/2009 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121				
EXAMINER NGUYEN, VAN H				
ART UNIT 2194		PAPER NUMBER		
NOTIFICATION DATE 10/07/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/791,519

**Applicant(s)**

GRUBER ET AL.

**Examiner**

VAN H. NGUYEN

**Art Unit**

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08/26/09 and 04/22/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15, 17-21 and 23-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6, 8-10, 12, 13, 17, 19, 20 and 23-26 is/are rejected.
- 7) ☒ Claim(s) 2, 7, 11, 14, 15, 18, 21 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Final Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. This Office Action vacates the Final rejection mailed 06/29/2009, and responsive to the Amendment filed 04/22/2009, additional prior art has been found, thereby making this rejection Final.

Claims 1-15, 17-21, and 23-27 are currently pending in this application.

### Claim Rejections - 35 USC § 102

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-6, 8-10, 12, 13, 17, 19, 20, and 23-26 are rejected under 35 U.S.C. 102(c) as being anticipated by **Trottier et al.** (US 6763176 B1). The reference was cited by the Examiner in the Office Action mailed 06/29/2009.

#### As to claim 1:

Trottier teaches a method for processing command information in a command processing system [*see the Abstract and Summary*], the method comprising:

detecting a real time event while monitoring a plurality of event signals, wherein the plurality of event signals are generated by a plurality of engines and one of the plurality engines is a 3D engines; and causing commands in a real time event command buffer to be fetched and consumed in response to the real time event *[see Col. 1, line 62-Col.3, line 22, and Col.5, lines 24-45; Col.6, lines 17-34; and Col.7, line 58-Col.8, line 11]*.

**As to claim 3:**

Trottier teaches providing the commands in the real time event command buffer to be processed by a command processor *[see Col. 1, line 62-Col.3, line 22]*.

**As to claim 4:**

Trottier teaches the real time event includes a system command from a system command buffer processed by a command processor, the method further comprising: first consuming all of the commands within the event command buffer; and in response to processing all of the commands of the event command buffer, processing a next system command within the system command buffer *[see Col. 1, line 62-Col.3, line 22]*.

**As to claim 5:**

Trottier teaches detecting a second real time event; and causing commands in a second command buffer to be fetched and consumed in response to detecting the second real time event *[see Col. 1, line 62-Col.3, line 22]*.

**As to claim 6:**

Trottier teaches a method for processing command information [*see the Abstract and Summary*], the method comprising:

providing system commands to a command processor from a system command buffer; detecting a real time event while monitoring a plurality of event signals, wherein the plurality of event signals are generated by a plurality of engines and one of the plurality of engines is a 3D engine; fetching commands in a real time event command buffer in response to the real time event; providing the commands in the real time event command buffer to the command processor; and consuming the real time event commands by the command processor [*see Col. 1, line 62-Col.3, line 22, and Col.5, lines 24-45; Col.6, lines 17-34; and Col.7, line 58-Col.8, line 11*].

**As to claim 8:**

Trottier teaches fetching the system commands from the system command buffer; in response to detecting a real time event, pausing the fetching of the system commands; and upon the processing of all the real time event commands in the real time event command buffer, resuming the fetching of system commands from the system command buffer [*see Col. 1, line 62-Col.3, line 22*].

**As to claim 9:**

Trottier teaches detecting a second real time event; fetch commands in a second real time event command buffer; providing the commands of the second real time event command buffer to the system processor; and consuming the second real time event commands by the system processor [*see Col. 1, line 62-Col.3, line 22*].

**As to claim 10:**

Trottier teaches a method for processing command information [*see the Abstract and Summary*], the method comprising:  
loading real time event into a real time event detector; providing a system command from a system command buffer to a command processor; detecting a real time event while monitoring a plurality of event signals, wherein the plurality of event signals are generated by a plurality of engines and one of the, plurality of engines is a 3D engine; fetching commands in the real time event command buffer; providing the commands of real time event command buffer to the system processor; and consuming the real time event commands by system processor [*see Col. 1, line 62-Col.3, line 22, and Col.5, lines 24-45; Col.6, lines 17-34; and Col.7, line 58-Col.8, line 11*].

**As to claim 12:**

Trottier teaches loading a second real time event into the real time event detector [*see Col. 1, line 62-Col.3, line 22*].

**As to claim 13:**

Trottier teaches an apparatus for processing command information [*see the Abstract and Summary*], the apparatus

comprising:

a command processor for processing system commands from a system command buffer; a real time event engine which monitors a plurality of event signals for a real time event; and a real time event command buffer, containing a plurality of real time event commands, operably coupled to the real time event engine; a plurality of engines providing the plurality of event signals, wherein one of the engines is a 3D engine; and wherein when the real time event occurs, the real time event commands are fetched and consumed by the command processor [*see Col. 1, line 62-Col.3, line 22, and Col.5, lines 24-45; Col.6, lines 17-34; and Col.7, line 58-Col.8, line 11*].

**As to claim 17:**

Trottier teaches the event table is stored in a local command processor memory [*Col.4, lines 11-31*].

**As to claim 19:**

Trottier teaches a second real time event engine which monitors the commands provided to the command processor for a second real time event; and a second real time event command buffer, containing a plurality of second real time event commands, operably coupled to the second real time event engine, wherein when the second real time event occurs, the second real time commands are fetched and consumed by the command processor [*see Col. 1, line 62-Col.3, line 22*].

**As to claim 20:**

Trottier teaches an apparatus for processing command information [*see the Abstract and Summary*], the apparatus

comprising:

a command processor for processing system commands from a system command buffer; a first real time event engine which monitors a plurality of event signals for a first real time event; a plurality of engines providing the plurality of event signals, wherein one of the plurality of engines is a 3D engine; a first real time event command buffer, containing a plurality of first real time event commands, operably coupled to the first real time event engine, wherein when the first real time event occurs, the processing of the system commands is paused and the first real time event commands are fetched and consumed by the command processor; a second real time event engine which monitors the plurality of event signals for a second real time event; and a second real time event



command buffer, containing a plurality of second real time event commands, operably coupled to the second real time event engine, wherein when the second real time event occurs, the processing of commands by the command processor is paused and the second real time event commands are fetched and consumed by the command processor *[see Col. 1, line 62-Col.3, line 22, and Col.5, lines 24-45; Col.6, lines 17-34; and Col.7, line 58-Col.8, line 11]*.

**As to claim 23:**

Trottier teaches a graphics controller *[see the Abstract and Summary]* comprising: a command processor for processing system commands from a system command buffer; a first real time event engine which monitors a plurality of event signals for a first real time event; a plurality of engines providing the plurality of event signals, wherein one of the plurality of engines is a 3D engine; and a first real time event command buffer, containing a plurality of first real time event commands, operably coupled to the first real time event engine, wherein when the first real time event occurs, the processing of the system commands is paused and the first real time event commands are fetched and consumed by the command processor *[see Col. 1, line 62-Col.3, line 22, and Col.5, lines 24-45; Col.6, lines 17-34; and Col.7, line 58-Col.8, line 11]*.

**As to claim 24:**

Trottier teaches a second real time event engine which monitors the plurality of event signals for a second real time event; a second event command buffer, containing a

plurality of second real time event commands, operably coupled to the second real time event engine, wherein when the second real time event occurs, the processing of commands by the command processor is paused and the second real time event commands are fetched and consumed by the command processor *[see Col. 1, line 62-Col.3, line 22]*.

**As to claim 25:**

Trottier teaches the second real time event of the second real time event engine is programmed by the first real time event engine *[see Col. 1, line 62-Col.3, line 22]*.

**As to claim 26:**

Trottier teaches an apparatus for processing command information *[see the Abstract and Summary]*, the apparatus comprising: means for processing system commands from a system command buffer; first means for monitoring a plurality of event signals for a first real time event;

a plurality of means for providing the plurality of event signals, wherein one of the plurality of means is a 3D engine; a first means for containing a plurality Of first real time event commands, operably coupled to the first means for monitoring; wherein when the first real time event occurs, the processing of the commands by the means for processing system commands is paused and the first real time event commands are fetched and consumed by the means for processing system commands; a second means for monitoring the plurality of event signals for a second real time event; and a second

means for containing a plurality of second real time event commands, operably coupled to the second means for monitoring, wherein when the second real time event occurs, the processing of commands by the means for processing system commands is paused and the second real time event commands are fetched and consumed by the means for processing system commands [see Col. 1, line 62-Col.3, line 22, and Col.5, lines 24-45; Col.6, lines 17-34; and Col.7, line 58-Col.8, line 11].

### **Allowable Subject Matter**

3. Claims 2, 7, 11, 14, 15, 18, 21, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, subject to the results of a final search by the Examiner.

### **Conclusion**

4. The prior art made of record, see PTO 892, and not relied upon is considered pertinent to applicant's disclosure. Applicant should review these references carefully before responding to this office action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### **Contact Information**

5. Any inquiry or a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (571) 272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM-6:00PM. The examiner can also be reached on alternative Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HYUNG S. SOUGH can be reached at (571) 272-6799.

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The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VAN H NGUYEN/

Primary Examiner, Art Unit 2194